

Table 2. Summary of findings PICO 1

<u>Outcome</u>	<u>Ultrasound-guided placement</u> n/N (%) / mean (SD) / median (IQR)	<u>Landmark-based placement</u> n/N (%) / mean (SD) / median (IQR)	<u>Relative risk ratio (RR) (95% CI) / Mean difference (MD)</u> (95% CI)	<u>Number of trials</u>	<u>Difference considered clinically relevant?</u>
1.1 Overall success rate internal jugular vein placement	830/841 (98.7%)	788/830 (94.9%)	RR 0.98 (95% CI 0.95 to 1.01)	N = 9	No
1.2 Overall success rate internal subclavian vein placement	214/237 (90.3%)	188/232 (81.0%)	RR 0.88 (95% CI 0.76 to 1.03)	N = 5	No
1.3 Overall success rate femoral vein placement	15/15 (100%)	7/10 (70.0%)	RR 0.70 (95% CI 0.47 to 1.06)	N = 1	Yes
1.4 First attempt success rate internal jugular vein placement	603/652 (92.5%)	477/623 (76.6%)	RR 0.82 (95% CI 0.70 to 0.95)	N = 6	No
1.5 First attempt success rate subclavian vein placement	110/161 (68.3%)	82/163 (50.3%)	RR 0.72 (95% CI 0.54 to 0.97)	N = 3	Yes
1.6 First attempt success rate femoral vein placement	No data.	No data.	Not applicable.	Not applicable.	Not applicable.
2.1 Complications internal jugular vein placement	42/553 (7.6%)	144/561 (25.7%)	RR 0.28 (95% CI 0.16 to 0.49)	N = 8	Yes
2.2 Complications subclavian vein placement	10/192 (5.2%)	42/193 (21.8%)	RR 0.26 (95% CI 0.13 to 0.51)	N = 4	Yes
2.3 Complications femoral vein placement	0/15 (0%)	2/10 (20.0%)	RR 0.14 (95% CI 0.01 to 2.60)	N = 1	Yes
3.1 Number of attempts in the internal jugular vein	22/168 (13.1%) who required more than one attempt	75/168 (44.6%) who required more than one attempts	RR 0.29 (95% CI 0.19 to 0.45)	N = 1	Yes
	1.1 (0.5) needles passes for placement of a central venous catheter	2.2 (1.6) needles passes for placement of a central venous catheter	MD -1.10 (95% CI -1.56 to -0.64)	N = 1	Not applicable.
	1.06 (0.24) attempts				

		1.43 (0.66) attempts	MD 0.37 (95% CI -0.62 to -0.12)	N =1	Not applicable.
3.2 Number of attempts in the subclavian vein	Median 1.0 (IQR 1.0 to 1.0)	Median 2.0 (IQR 1.0 to 4.0)	Not applicable.	N = 1	Not applicable.
	1.6 (1.0) attempts	1.5 (0.7) attempts	MD -0.10 (95% CI -0.14 to 0.34)	N = 1	No
3.3 Number of attempts in the femoral vein	No data.	No data.	Not applicable.	Not applicable.	Not applicable.
4.1 Duration of the procedure in the internal jugular vein	4.2 (0.4) minutes	4.7 (0.8) minutes	MD -0.50 (95% CI -0.76 to -0.24)	N = 1	Not applicable.
			Pooled MD -36.65 (95% CI -54.47 to -18.73) seconds	N = 6	Not applicable.
4.2 Duration of the procedure in the subclavian vein	50 (47) seconds	62 (53) seconds	MD -12.00 (95% CI -26.09 to 2.09)	N = 1	Not applicable.
4.3 Duration of the procedure in the femoral vein	No data.	No data.	Not applicable.	Not applicable.	Not applicable.
5. Mortality	No data.	No data.	Not applicable.	Not applicable.	Not applicable.
6. Quality of life	No data.	No data.	Not applicable.	Not applicable.	Not applicable.
7. Patients' satisfaction	No data.	No data.	Not applicable.	Not applicable.	Not applicable.
8. Catheter-related interventions	No data.	No data.	Not applicable.	Not applicable.	Not applicable.
9. Thrombophlebitis	No data.	No data.	Not applicable.	Not applicable.	Not applicable.